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(54) Title: DEFECT DETECTION FOR MULTI-DIE MASKS

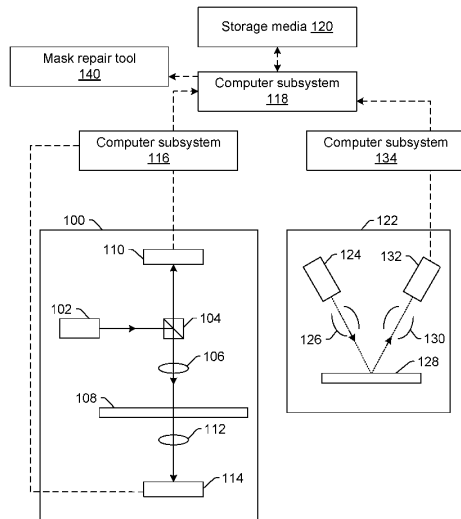


Fig. 1

(57) Abstract: Methods and systems for detecting defects on a mask are provided. One method includes generating a database reference image for a multi-die mask by simulation and detecting first defects on the mask by comparing the database reference image to images of the mask generated by an imaging subsystem for a first of the multiple dies. The method also includes generating a die reference image for the first of the multiple dies by applying one or more parameters of the imaging subsystem learned by generating the database reference image to the images generated by the imaging subsystem of one or more of the multiple dies other than the first multiple die. In addition, the method includes detecting second defects on the mask by comparing the die reference image to the images of the mask generated by the imaging subsystem for the first of the multiple dies.

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